

SECRET

CIA/RR GB 64-13
April 1964

CLIMATIC AND SOIL DATA ON DNEPROPETROVSK

(48°27'N-34°51'E)

I. Climate

A. Climatic Summary

The annual temperature-precipitation regime of Dnepropetrovsk is roughly analogous to that of the Great Plains Region of the United States in southwestern South Dakota and northwestern Nebraska. From the point of view of good weather for construction, however, Dnepropetrovsk probably has a more favorable climate because rainfall is more evenly distributed throughout the year.

Surface air temperatures in winter, on the average, are 6 to 11 Fahrenheit degrees below freezing, with mean daily minimum temperatures between 21° and 26°F and mean daily maximum temperatures between 27° and 29°F (see Table 1). Precipitation is heaviest in June (3.1 inches) and lightest in September (0.9 inches) (see Table 2). Almost half of the annual precipitation falls between May and August. The frequency of precipitation, including even a trace, varies from 9 to 12 days a month except from July through September, when it drops to 5 to 7 days a month. Rainfall in summer is frequently in the form of showers. Snowfall occurs from October through April, with a maximum frequency (9 to 10 days a month) in December through February. Snow accounts for about 21 percent of the total annual precipitation. The snow cover is generally less than 6 inches, very unstable, and thaws many times during the winter.

In winter the average depth of frozen ground is 2.6 feet, but occasionally the ground may freeze to a depth of 5 or 6 feet.

SECRET

GROUP 1
Excluded from automatic
downgrading and
classification

SECRETA. Climatic TablesTable 1
Temperature

	<u>Average</u>	<u>Degrees Fahrenheit</u>	
		<u>Average</u> <u>Daily Maximum</u>	<u>Average</u> <u>Daily Minimum</u>
January	21.7°	25°	15°
February	22.8°	29°	20°
March	32.9°	57°	28°
April	47.3°	53°	38°
May	61.2°	69°	51°
June	66.7°	75°	59°
July	72.0°	80°	62°
August	69.8°	79°	60°
September	60.1°	68°	50°
October	48.1°	55°	40°
November	35.4°	37°	29°
December	26.1°	28°	21°

Absolute minimum temperature: -36.4°.

Absolute maximum temperature: 100.4°.

Period when the average temperature is less than 32°:

23 November through 14 March.

- P -

SECRET

SECRET

Table 2
Precipitation

	<u>Average Precipitation (inches)</u>	<u>Average Number of Days with Thunderstorms</u>	<u>Average Number of Days with Snowfall</u>
January	1.4	0	10
February	1.2	0	9
March	1.3	0	6
April	1.4	less than 0.5	1
May	2.0	4	0
June	3.1	6	0
July	1.7	5	0
August	1.7	5	0
September	0.9	1	0
October	1.8	less than 0.5	less than 0.5
November	1.5	less than 0.5	4
December	1.7	0	9

Annual precipitation: 19.7 inches.

Number of days per year with precipitation greater than 0.004 inches: 125.

Maximum recorded precipitation in 24 hours: 2.83 inches.

Average number of days per year with snow cover: 79.

Average date of first snow cover: 26 November.

Average date of disappearance of snow cover: 21 March.

Average maximum depth of snow cover (based on 10-day period of greatest depth): 6.3 inches.

- 3 -

SECRET

C. Reliability of Climatic Data

Data on average daily maximum and minimum temperatures and on average number of days with thunderstorms and snowfall are from a 1948 USAF publication and are based upon limited pre-World War II Russian data that in some cases may have spanned as few as 5 years. All other data are from recent Soviet sources that appear to be based on longer periods, although the exact number of years is not specified. These variations in source material undoubtedly influence the failure of the average temperatures given in the table to correspond with the median between the average daily maximum and the average daily minimum temperatures.

2. Soils and Landforms

Soils around Dnepropetrovsk are chernozems, which consist of an upper layer of silt from 6 to 50 feet thick and a lower layer of various types of clays and sands that may range from a negligible thickness up to 150 feet. Thus, bedrock lies from 6 to 200 feet below the surface. North of Dnepropetrovsk it consists of sandstone and shale interbedded with sand and clay, and to the south, of limestone, sandstone, conglomerate, and shale interbedded with sand and clay. Throughout the entire area, red granite lies beneath these varying sedimentary layers. East of Dnepropetrovsk, around Dneprodzhershinsk, the sedimentary layers are absent and granite is the immediate bedrock. The outcrops of granite in the bed of the Dnepr River cause rapids.

The highest point in Dnepropetrovsk, on the high right bank of the Dnepr, is about 425 feet above the river. On the right bank a series of five large terraces rises from the river to the higher elevations of the rolling plain. These terraces are greatly eroded by ravines, some of them large. The left bank is lower and lacks terraces.

SECRET

STATINTL

1 and 2 Requester

3 Ch/G

L₄ GG/S

5

6

7

8

9

10 D/GG Files

Approved For Release 2001/04/27 : CIA-RDP79T01019A000200090001-9

ADMINISTRATIVE - INTERNAL USE ONLY

Project No. 14-00000 Approved For Release 2001/04/27 : CIA-RDP79T01019A000200090001-9

GB64-13
Report No.

Requester: Analyst
Branch Chief
Deadline for Delivery to the Requester Special Asst. MAZ
Division Chief 2 DA STATINTL

Date Released

16 Apr '64
16 Apr '64
16 Apr '64
17 Apr

Classification Secret

Control

Editing and Review	Date	Instructions for Final Typing
Editor <u>AMA</u>	<u>17 Apr</u>	For Photolith <u> </u>
Editor/Analyst <u>AMA</u>	<u>17 Apr</u>	For Multilith <u> </u>
Typist (final) <u>MAZ</u>	<u>17 Apr</u>	For Ditto <u> </u>
Proofreaders <u>AMA</u>	<u>17 Apr</u>	On Bond with <u>suber</u> carbons
<u>MAZ</u>	<u>17 Apr</u>	Other <u> </u>
Analyst <u> </u>		

Maps

Compilation Branch

Map Number

Subject

None

Other Instructions and Comments Final copy submitted
delivered to requester on 16 Apr

Final Editorial Approval
Before Reproduction and
Distribution

All changes
on Final Copy AMA 17 Apr

Dittoed copy
(assembled)

Proof copy
(from Repro)

ADMINISTRATIVE - INTERNAL USE ONLY